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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/624,504	07/23/2003	Geoffrey B. Hardwick	16240.M-279	7401

7590 04/25/2007  
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EXAMINER
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MCNALLY, DANIEL

ART UNIT	PAPER NUMBER
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1733

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/25/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/624,504	<b>Applicant(s)</b> HARDWICK ET AL.	
	<b>Examiner</b> Daniel McNally	<b>Art Unit</b> 1733	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 26 February 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-5 and 7-14 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-5 and 7-14 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

1. This Office action is in response to the amendment filed 2/26/2007.

#### ***Claim Rejections - 35 USC § 103***

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
3. Claims 1, 4, 5, 7, and 12-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stofko et al. [US4007312] (newly cited) in view of Vaders [US2003/0098117] (newly cited).

Stofko discloses a method of bonding lignocellulosic material in the manufacture of laminated wood products (column 1, lines 7-18). Stofko's method comprises providing the lignocellulosic material, wood veneer or wood composite board, treating the surface of the lignocellulosic material; placing two adjacent lignocellulosic material layers into a press and pressing the layers under elevated temperature and pressure (column 1, lines 37-68). The pressing under elevated temperature and pressure results in chemical bonding or fusing between the adjacent layers without the use of adhesive. Stofko discloses lignocellulosic materials including plywood panels and particleboard (column 4, lines 56-68). Stofko discloses a press, which would comprise an upper and lower dies defining a mold cavity, however there is no suggestion of providing a plurality of protrusions in either one of the upper or lower dies. Stofko discloses uniformly pressing and fusing the wood layers and does not suggest forming high-density and low-density portions.

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Vaders discloses a method of manufacturing consolidated cellulosic panels. It is noted Vader assigned to the same assignee as the instant application and is available under both 35 U.S.C. 102(a) and 102(e). Vaders discloses forming consolidated cellulosic panels or wood products. Vader discloses numerous applications including but not limited to house siding, door components, cabinet doors and paneling as well as others which would include core components (column 1, lines 14-34). The method of Vaders comprises pressing a mat between a first and second flat-faced dies to form a compressed panel. However Vaders also discloses that it is known to include die compressions or protrusions one of the dies in order to provide contours in the compressed panels. It is disclosed that upon pressing, the panel pressed with the contoured die will have a non-uniform caliper and the thinner areas will be of a higher density than the thicker areas. The thinner areas are adjacent to the compressions or protrusion of the die and the thick and thin areas are adjacent to each other in the panel.

It would have been obvious to one of ordinary skill in the art at the time of invention to press and fuse the lignocellulosic layers of Stofko in a press comprising at least one die comprising compressions or protrusions as taught by Vaders in order to form contours in the pressed panel.

With regard to claims 5 and 7, one of ordinary skill in the art would have readily appreciated selecting desirable thicknesses for the thicker and thinner areas or "high-density" and "low-density" areas for a wood panel useful as a door core portion. With regard to claim 4, by selecting desired thickness of the panel when uncompressed and

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compressed with will result in a panel with a desired specific gravity, which can be varied by varying the thickness of the panel.

With regard to claims 12-14, Stofko discloses a suitable pressing time of about 4 to 50 minutes per 1 inch of board thickness. Stofko also discloses that the pressing time may vary depending on the pressing temperature (column 4, lines 3-23).

4. Claims 3 and 8 are is rejected under 35 U.S.C. 103(a) as being unpatentable over Stofko et al. in view of Vaders and further in view of Holt [US5417788] (of record, previously cited).

Stofko as modified by Vaders discloses a method of making a compressed lignocellulosic panel. The applicant is referred to paragraph 3 above for a detailed discussion of Stofko as modified. With regard to claim 3, the contours or channels of Vaders as seen in Figure 4 comprise a bottom, side walls extending from and integral with the bottom and outer surface. Vaders discloses protrusions on one of the dies that would form channels on one of the outer surfaces of the panel. While Vaders does disclose protrusions on the upper and lower dies of Figure 2, the pressing does not result in areas of high and low density.

Holt discloses a method of producing a door core panel. The panel of Holt is pressed in a mold having an upper and lower die (column 2, line 54 – column 3, line 28). As seen in Figure 2, the upper and lower dies have protuberances thereon which compress areas of the panel to a higher density.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the upper and lower dies of Vaders and Stofko to include upper and

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lower protuberances as taught by Holt in order to contour both outer surfaces of the panel while still forming areas of high and low density.

With regard to claim 8, as seen in Figure 2 of Holt the protuberances of the upper and lower dies are aligned.

5. Claims 9-11 rejected under 35 U.S.C. 103(a) as being unpatentable over Stofko et al. in view of Vaders and further in view of Ruggie et al. [US5887402] (of record, previously cited).

Stofko as modified by Vaders discloses a method of making a compressed lignocellulosic panel. The applicant is referred to paragraph 3 above for a detailed discussion of Stofko as modified. With regard to claim 9, Stofko and Vaders disclose a variety of composite wood boards including particleboards and fiberboards, however they do not explicitly disclose the boards as insulation board or soft board.

Ruggie discloses a method of making cellulosic core components for doors. Ruggie discloses the cellulosic material selected for the core is variable and several examples are provided including fiberboard, particleboard and softboard (column 1, lines 14-26 and column 8, lines 58-63). Ruggie also discloses the core material as a sound insulating material (column 11, lines 15-25).

It would have been obvious to one of ordinary skill in the art at the time of invention to select the lignocellulosic panel material as taught by Ruggie in order to make a core component that is sound insulating.

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With regard to claim 10, one of ordinary skill in the art would have readily appreciated selecting a board or panel with a desired thickness so that the panel could be used as a door core.

With regard to claim 11, Stofko discloses that the lignocellulosic material panels rely upon the lignin of the board to bind together the cellulose microfibrils (column 2, lines 3-15). The dependence upon lignin as the binder replaces the need for resin to hold the microfibrils together therefore the panels can be produced without resin.

### ***Response to Arguments***

6. Applicant's arguments with respect to claims 1, 3-5, and 7-14 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Daniel McNally whose telephone number is (571) 272-2685. The examiner can normally be reached on Monday - Friday 8:00AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on (571) 272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

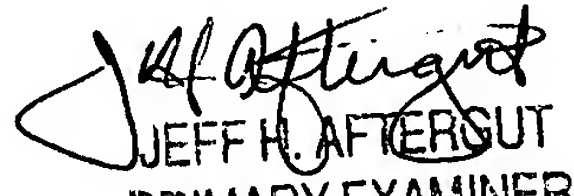


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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Daniel McNally  
Examiner  
Art Unit 1733



JEFF H. AFTERSUT  
PRIMARY EXAMINER  
GROUP 1300

dpm  
April 17, 2007